

July 8, 1951.

Dr. Reese Vaughn,
University of California,
Berkeley 4, California.

Dear Dr. Vaughn:

I should have written to you some weeks ago, but at my last opportunity, I was preparing to leave for the S.A.B. meetings at Chicago, at which I had hoped to talk with you at closer range. Unfortunately, we did not arrive until after your departure.

Late in May, we received a group of 10 or so cultures from you, which I take to be representatives of intermediate or aberrant coliform types. They are being worked up now, subsequent to my return from an extended trip, but we will be very lucky indeed if a small sample as this should show up any of the inter-fertile strains I am looking for; you will certainly be informed of this. Do you have any special comment on these isolates?

Our work on the isolation of new fertile strains is continuing routinely. So far, we have examined about 700, mostly typical coli, but a number of paracolon and aerogenes types, and have found about 25 that can be crossed with the tester stock of E. coli K-12. As I may have mentioned previously, none of the successful isolates so far have been divergent from typical coli in more than one or two characters (one indole-negative; a couple of lactose-negative), except for two or three strains of whose genetic behavior I am still very doubtful. However, the sample is still no where nearly large enough to draw any conclusions as to the "species-specificity" of genetic recombination. One of the students in my laboratory now has conclusive evidence of recombination in Salmonella typhimurium, and here it looks as if a peculiar morphological phase, probably "L-forms", are involved. The Salmonella and coli systems do not interact, and so far appear to differ in a number of important features which may possibly converge with further work.

I was not clear in my mind from your letters whether you would be in a position to help our program by supplying any considerable numbers of intermediate cultures isolated in your laboratory. I take it that most of the collection on which your papers on taxonomy ~~were~~ were based has been disbanded. May I ask, however, about the prospects that the directions of your current or future investigations may, as a byproduct, make it convenient and feasible for you to supply additional groups of cultures for our tests?

Yours sincerely,

Joshua Lederberg